Innovative Energy Systems Challenge in the Chemical Industry

To accelerate innovation and technology development in efficient energy systems, ITP and the Chemical Industry Vision2020 Technology Partnership (Vision2020) have established a three-year joint venture. This collaboration will support research, development, and demonstration of projects to enhance the productivity of energy systems that are integrated with chemical processing and energy supply systems within plant boundaries. The goal of the collaboration is to commercialize one or more innovative energy systems that will have widespread application and yield significant energy savings for the chemical industry.

The **Innovative Energy Systems Challenge** will target inefficient on- and off-site energy generation, transmission, conversion and distribution systems that account for energy losses of more than 2.3 quadrillion Btu (quads) annually in the chemical industry. Innovative energy systems could achieve an estimated 30% reduction in chemical industry energy losses by 2020, and result in savings of more than 700 million Btu and $2-3 billion dollars per year.

Chemical industry chief technology officers and other chemical industry leaders have identified priorities for R&D, recognizing that more efficient energy systems represent a major opportunity for energy and cost savings. This initiative tackles the important technical challenges facing the chemical industry by targeting roughly half the amount of the total energy lost before reaching a typical chemical plant's operations and process. These losses may occur at the boundary of the chemical plant or on-site.

R&D under this collaboration will address inefficiencies in on-site heat and power generation, energy distribution and conversion, and chemical processes. Solicitations will be issued for innovative energy system technology development, implementation, and commercialization in partnership with DOE and Vision2020. Read the Vision2020 report, *Opportunities for Innovative Energy Systems in the U.S. Chemical Industry* (PDF 443 KB), for details on technology priorities. Download Acrobat Reader.